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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* AZIZ HASSAN, ABBAS HASSAN, and  
GREGORY BORSINGER

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Appeal 2008-3649  
Application 10/669,357  
Technology Center 1700

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Decided: September 18, 2008

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Before EDWARD C. KIMLIN, THOMAS A. WALTZ, and  
ROMULO H. DELMENDO, *Administrative Patent Judges*.

DELMENDO, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of all pending claims 30-39, 41, 42, 45, and 47. (Final Office Action entered August 3, 2006). We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Appellants' invention relates to "a composition that can be applied to fibrous cellulosic objects such as paper and paperboard, and render such treated cellulosic objects recyclable using conventional means of recycling." (Spec. 6, ll. 4-6). According to Appellants, the composition comprises "highly hydrogenated vegetable oil (palm, soybean, corn) that has wax-like properties. . . . [where t]he hydrogenated oils that can be used are >90% triglyceride and have a range of carbon numbers with C18 being the most predominant component (>50%)." (*Id.* 7, ll. 14-19).

Representative claims 30, 31, 33, 41, 45, and 47 read as follows:

30. A composition for application to a fibrous cellulosic material, the composition comprising a vegetable-derived triglyceride having a melting point greater than 120 degrees F, and being characterized by an iodine value between 0 and 30, the triglyceride comprising an oil selected from the group consisting of soybean, corn, cottonseed, rape, canola, sunflower, palm, palm kernel, coconut, crambe, linseed and peanut, the composition applied in a quantity sufficient to render the cellulosic material resistant to water, the applied composition being dispersible in a warm alkaline aqueous solution.

31. The composition as described in claim 30, wherein the melting point is from about 130 degrees F to about 165 degrees F.

33. The composition as described in claim 31, wherein the composition is further characterized by having a viscosity of from about 10 to about 200 cps at a temperature of 140 degrees F.

41. The composition as described in claim 30, wherein the triglyceride comprises from about 80 to about 100% by weight of the composition.

45. A composition for application to a fibrous cellulosic material, the composition comprising a vegetable-derived triglyceride having a melting point between 136-160 degrees F, the triglyceride being characterized by having an iodine value of between 2 and 5, the composition being characterized by a viscosity of from about 10 to about 200 cps at 140 degrees F, wherein the triglyceride comprises a fatty acid, the fatty acid being stearic acid, and wherein the triglyceride comprises an oil selected from the group consisting of palm and soybean oil, the composition applied in a quantity to render the cellulosic material resistant to water, the applied composition being dispersible in a warm alkaline aqueous solution.

47. The composition as described in claim 30, wherein the fibrous cellulosic material is chosen from the group consisting of paper, kraft paper, corrugated paper, linerboard and paperboard.

The prior art references relied upon by the Examiner to reject the claims on appeal are:

Sleeter	U.S. 6,001,286	Dec. 14, 1999
Ong	WO 96/00815	Jan. 11, 1996

Eriksen, J., RD 392017, Dec. 10, 1996.

The following rejections are before us for review:

Claims 30-39, 41, 42, 45, and 47 are rejected under 35 U.S.C. § 103(a) as unpatentable in view of Sleeter.

Claims 30-38, 41, 42, 45, and 47 are rejected under 35 U.S.C. § 103(a) as unpatentable in view of Ong.

Claims 30-33, 41, and 47 are rejected under 35 U.S.C. § 103(a) as unpatentable in view of RD 392017.

### ISSUES

Have Appellants shown reversible error in the Examiner's determination that the subject matter of claims 30-39, 41, 42, 45, and 47 would have been obvious to one of ordinary skill in the art in view of Sleeter?

Have Appellants shown that the Examiner reversibly erred in determining that the subject matter of claims 30-38, 41, 42, 45, and 47 would have been obvious to one of ordinary skill in the art in view of Ong?

Have Appellants shown reversible error in the Examiner's determination that the subject matter of claims 30-33, 41, and 47 would have been obvious to one of ordinary skill in the art in view of RD 392017?

### FINDINGS OF FACT

The record supports the following findings of fact, as well as any other findings of fact discussed in this opinion, by at least a preponderance of the evidence.

1. Appellants' Specification states: "The present invention performs best with a hydrogenated triglyceride where the iodine value is close to zero thereby rendering the triglyceride more thermally stable. The triglycerides can be chosen from those having an iodine value of between 0-30, but a triglyceride having an iodine value of between 2-5 is preferred." (Spec. 11, ll. 23-26).

2. The Specification states “[s]aturated triglycerides having a low iodine value (a range of iodine values of about 0-70 with 0-30 preferred) may be produced by hydrogenation of a commercial oil, such as oils of soybean, soy stearine, stearine, corn, cottonseed, rape, canola, sunflower, palm, palm kernel, coconut, crambe, linseed, peanut, fish and tall oil; or fats, such as animal fats, including lard and tallow, and blends thereof.” (Spec. 11, ll. 2-6).
3. The Specification discloses “specific waxes employed in the invention are a palm oil wax and a soybean wax, prepared from hydrogenated oil,” which are 98% triglyceride by weight and predominantly stearic acid triglyceride. (Spec. 7, ll. 2-30; 13, ll. 18-21; 15, ll. 9-10; 16, ll. 8-13; Tables 1 and 2).
4. The melting point of the soybean oil wax is between 155-160°F and for the palm oil wax is between 136-142°F. (Spec. 15, ll. 3-4).
5. The Specification discloses the melting point property of a free fatty acid/triglyceride mixture varies as a function of the chain length and degree of saturation of the free fatty acids and the fatty acid components of the triglycerides. (*Id.* 10, ll. 11-14).
6. The Specification states fatty acid components of triglycerides with increasing iodine values (i.e., decreasing degree of saturation) show decreasing melting points. (*Id.* 10, ll. 14-15).
7. Sleeter discloses a composition for rendering fibrous vegetable materials water resistant comprising a vegetable-derived triglyceride having an iodine value between 0-30, where the triglyceride “may be produced by a hydrogenation of a commercial oil or fat, such as oils of: soybean, soy stearine, stearine, corn, cottonseed, rape, canola,

- sunflower, fish, lard, tallow, palm, palm kernel, coconut, crambe, linseed, peanut, tall oil, animal fats, and blends thereof.” (Col. 1, ll. 44-50; abstract, ll. 1-3).
8. Sleeter discloses that vegetable oils “hydrogenated to low or very low iodine values (‘IV’) . . . or fats naturally composed primarily of saturated triglycerides (such as palm oil or fractionated fats) can be used alone or in blend formations with adhesives/laminants to achieve an enhanced water tolerance for composite materials.” (Col. 1, ll. 35-40).
  9. Sleeter teaches dry particles of the triglyceride may be sprayed onto the substrate, where the dry particles are 100% triglyceride. (Col. 2, ll. 55-63; col. 3, ll. 8-14).
  10. Sleeter discloses applying the dry particles of triglyceride after the fibrous composite material is formed. (Col. 3, ll. 9-11).
  11. Sleeter teaches applying the claimed composition to “fibrous vegetable matter.” (Abstract, ll. 1-3; col. 1, ll. 4-8).
  12. RD 39207 discloses coating paper to obtain a waterproof barrier “using high melting non hydrogenated triglyceride fractions *alone* or as mixtures with vegetable or animal fats,” that has the advantage of “[e]asy recyclability of used coated paper.” (Emphasis added; RD 39207 at 1, ll. 16-19, 24).
  13. RD 392017 discloses mixtures for paper coatings of: i) palm stearin having iodine value 12.7 and ii) palm stearin having iodine value 38.2 in proportions ranging from 90:10 to 10:90, and the product having a melting point of 50-65°C (122-149°F). (RD 392017 at 1, ll. 31-33, 37-39).

14. The Specification discloses vegetable oils and fats with low iodine values can be obtained by both hydrogenation and fractionation. (Spec. 10, ll. 26-27; 11, ll. 10-15).

### PRINCIPLES OF LAW

It is well settled that when a claimed product reasonably appears to be substantially the same as a product disclosed in the prior art, the burden of proof is shifted to applicant to prove that the prior art product does not inherently or necessarily possess the characteristics attributed to the claimed product. *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990); *In re Fitzgerald*, 629 F.2d 67, 70 (CCPA 1980); *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977) (“Whether the rejection is based on ‘inherency’ under 35 U.S.C. § 102, on ‘prima facie obviousness’ under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products.”) (Footnote omitted.).

“[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a *prima facie* case of obviousness.” *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003).

### ANALYSIS

*Obviousness Rejection of Claims 30-39, 41, 42, 45, and 47 in View of Sleeter*

Appellants submit specific arguments separately addressing claims 30, 41, 45, and 47. We address these arguments accordingly. Appellants also argue claims 30-39, 42, and 47 together. We select representative claim 30



from this group of claims and address these arguments with separately argued claim 30. 37 C.F.R. § 41.37(c)(1)(vii).

Claim 30

Appellants do not dispute the Examiner's findings that Sleeter discloses a composition for rendering fibrous vegetable materials water resistant comprising a vegetable-derived triglyceride having an iodine value between 0-30, where the composition comprises triglyceride fats, such as soy stearine or a palm triglyceride. (Ans. 4, ll. 1-8; App. Br. 11-13; FF 7). Rather, Appellants argue that the claimed properties of the composition, such as melting point and recyclability (i.e., dispersibility in warm alkaline aqueous solution), are not disclosed in Sleeter. (*Id.* 12, ll. 26-29; 14, ll. 2-6). Appellants contend: “[A]llegations that the claimed properties are inherent in the reference are based merely on hindsight, because the teaching of applicants’ invention, and not that of the reference, is being used to teach what was not taught or recognized by the reference.” (*Id.* 12, ll. 26-33). Furthermore, Appellants assert: “[B]ecause the reference failed to appreciate or recognize the properties Applicant claims in the present pending claims, under the case law it is impermissible to have employed the Applicants’ teaching and recognition of the properties of the inventive waxes to fill in the gaps of the reference.” (*Id.* 13, ll. 21-24).

We find Appellants’ arguments unpersuasive. Appellants’ Specification states:

The present invention performs best with a hydrogenated triglyceride where the iodine value is close to zero thereby rendering the triglyceride more thermally stable. The triglycerides can be chosen from those having an iodine value of between 0-30, but a triglyceride having an iodine value of between 2-5 is preferred.

(FF 1). Furthermore, Appellants' Specification states the inventive triglycerides having low iodine values may be obtained by "hydrogenation of a commercial oil, such as oils of soybean, soy stearine, stearine, corn, cottonseed, rape, canola, sunflower, palm, palm kernel, coconut, crambe, linseed, peanut, fish and tall oil; or fats, such as animal fats, including lard and tallow, and blends thereof." (FF 2). Additionally, the Specification discloses examples of the inventive waxes of palm oil wax and soybean wax, which are 98% triglyceride by weight and predominantly stearic acid triglyceride (FF 3), and where the fatty acid composition of the hydrogenated soybean oil is 82-94% stearic acid. (Spec. Table 1). The melting point of these inventive waxes is described in Appellants' Specification to be between 155-160°F for soybean oil and between 136-142°F for palm oil. (FF 4). Also, according to Appellants, the melting point property of free fatty acid/triglyceride mixtures varies as a function of the chain length and degree of saturation of the free fatty acids and the fatty acid components of the triglycerides. (FF 5).

Describing a similar composition, Sleeter discloses "hydrogenation of a commercial oil or fat, such as oils of: soybean, soy stearine, stearine, corn, cottonseed, rape, canola, sunflower, fish, lard, tallow, palm, palm kernel, coconut, crambe, linseed, peanut, tall oil, animal fats, and blends thereof," to obtain triglycerides with a preferred iodine value of 0-30 for water repellant material for fibrous vegetable materials. (FF 7). Additionally, Sleeter teaches the vegetable oils, hydrogenated to low iodine values, "achieve an

enhanced water tolerance for composite materials,” either alone or in blends (FF 8).

Thus, the Specification impresses that the prior art composition comprising vegetable-derived triglycerides from hydrogenated soybean oil or soy stearine, having an iodine value of 0, would necessarily have the properties of a melting point greater than 120°F and dispersibility in warm alkaline aqueous solution, as recited in claim 30. Accordingly, the burden was properly shifted to Appellants to show the claimed composition had patentably distinct properties from the prior art composition. Appellants have not directed us to any persuasive evidence demonstrating any distinction, let alone a patentable one. *In re Spada*, 911 F.2d at 708; *In re Best*, 562 F.2d at 1255. (“Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product.”). *In re Fitzgerald*, 619 F.2d at 70 (“As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith.”).

Appellants argue that *In re Shetty*, 566 F.2d 81 (CCPA 1977), and *In re Spormann*, 363 F.2d 444 (CCPA 1966), support their argument that “use of an applicant’s application to complete gaps in the reference is improper.” (App. Br. 13, ll. 1-10).

Appellants’ reliance on *Shetty* and *Spormann* is misplaced. In *Shetty*, the court reviewed the Patent Office’s obviousness rejections of claims directed to a composition and a method of using the composition. *In re*

*Shetty*, 566 F.2d at 84-85. With respect to the composition claims, the court affirmed the rejection where the Patent Office found a structural similarity to the claimed composition, stating:

Confronted with PTO evidence of obviousness, appellant has offered no evidence of unobviousness, as by showing an actual difference in properties between his compounds and the prior art compounds. . . . Presented with such an absence of comparative or other evidence with respect to the properties of the compounds and the claimed composition, we hold that composition claim 52 would have been obvious from and unpatentable over the prior art.

*In re Shetty*, 566 F.2d at 86 (Citation omitted). With respect to the method claims, the court reversed the obviousness rejection. However, this reversal was based on the improper reliance on a dosage for combating microbial infestation to show a dosage for curbing appetite. (*Id.*). Appellants' arguments are unpersuasive because the rejection before us is similar to the affirmed rejection of the composition claims before the court in *Shetty*.

With respect to *Spormann*, Appellants rely on the court's statements: "That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown." (App. Br. 13, ll. 5-8).

Here, Appellants misapply the court's statements to the present appeal. In *Spormann*, the Patent Office rejected a method of spraying an aqueous solution of alkali metal hydroxides and/or carbonates into a dry gas comprising sulfur dioxide to produce alkali metal sulfites, where the gas temperature and humidity conditions cause the water content to vaporize in such a way that little sulfate is produced. (*Id.* at 444). The rejection combined references to show minimizing sulfate production would be inherent in a prior art process. (*Id.* at 448). The court held that the rejection

was improper because the prior art process was different from appellants' process. (*Id.*). These facts and issues are distinct than those before us in this appeal. Here, Appellants claimed composition is reasonably believed to be the same composition as that disclosed in the prior art, and therefore, has the same inherent properties.

For these reasons we find that Appellants have not shown the Examiner erred in determining claim 30 obvious in view of Sleeter.

Claim 41

Appellants argue that Sleeter does not disclose the claimed triglyceride comprising from about 80 to about 100% by weight of the composition. Particularly, Appellants contend:

[Sleeter's] spray application is performed prior to the material being laminated or pressed. The application of the dry particles is thus merely an intermediate step in the process, and because later steps of the process utilize additional materials, one skilled in the art can only speculate as to what the final concentration of the sprayed on material may be in the final product.

(Spec. 16, ll. 15-19).

Appellants' argument is not persuasive. The Examiner found that Sleeter teaches "[d]ry particles of the triglyceride may be sprayed onto the substrate . . . which means that the composition is then 100% triglyceride." (Ans. 4, ll. 17-18; FF 9). Appellants do not dispute the Examiner's finding that the prior art composition is 100% by weight concentration at the time the composition is applied. (App. Br. 11-23; Reply Br. 5-10). Rather, Appellants incorrectly focus on the composition concentration in the final product, which does not address the claimed subject matter of a "composition *for application* to a fibrous cellulosic material." (Emphasis

added; claim 30). Appellants' arguments addressing the intermediate step of a coating process relates to the intended use of the composition, not to the triglyceride concentration of the composition for application to the fibrous cellulosic material. Here, the claimed composition reads on the prior art composition regardless of its intended use.

Moreover, Sleeter discloses applying the composition of 100% by weight triglyceride after the fibrous composite material is formed. (FF 10). On this record, Appellants have not provided any persuasive evidence that the composition of claim 41 patentably distinguishes from the prior art composition.

#### Claim 45

Appellants argue: "Claim 45 claims use of a wax with an iodine value in the range of 2-5, and includes additional properties such as the range of melting points of the wax, and the viscosities of the inventive waxes." (App. Br. 16, l. 35 through 17, l. 2). Again, Appellants contend: "It is the Applicants' teaching being used in hindsight to fill the gap of the reference, because the reference fails to recognize any such properties of their composition." (App. Br. 16, ll. 30-33).

Again, we find Appellants' arguments unpersuasive. Sleeter discloses a prior art composition comprising triglycerides from hydrogenated soybean oil or soy stearine. (FF 7). As the Specification discloses the inventive soybean oil wax having a melting point range 155-160°F (FF 4), one of ordinary skill in the art would have understood the substantially identical prior art composition to have the same melting point range.

Furthermore, the Examiner determined viscosity to be a result effective variable that one of ordinary skill in the art would modify by

routine optimization to control an important parameter of coating processes. (Ans. 7, ll. 6-9). Appellants have not even asserted that the Examiner's determination that viscosity is a result effective variable is in error. (App. Br. 6-23). Appellants' bare arguments that Sleeter does not teach the composition properties found in the claim are not sufficient to overcome the Examiner's determination of obviousness. *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974) ("Attorney's argument in a brief cannot take the place of evidence.").

With respect to the claimed iodine values, Appellants contend that Sleeter teaches away from the claimed invention because, after analyzing the trade-off between composition performance and production expense, "Sleeter thus uses materials that have a much higher iodine value." (App. Br. 17, ll. 3-9).

This argument is not persuasive. Although Sleeter discusses trade-offs between iodine value and expense, Sleeter also discloses iodine values of 0-30, "finding that the optimum IV [iodine value] is 0 or as low as possible." (Col. 4, ll. 59-60). Though Sleeter teaches "for most uses a hydrogenation to an IV of 20-25 yields the best value in performance versus cost to produce" (Col. 4, ll. 66-67), the reference does not state this IV range should be selected for every use. Significantly, Sleeter does not discourage the use of lower iodine values when needed for performance requirements.

Moreover, the iodine value range disclosed in the prior art (i.e., 0-30) encompasses Appellants' claimed iodine value range of 2-5. Thus, the burden properly shifted to Appellants to show that their claimed narrower range would not have been obvious in light of the broader range disclosed in the prior art. *In re Peterson*, 315 F.3d at 1330. Appellants have not directed

us to any persuasive evidence that the claimed narrower iodine value range gives unexpected results as compared to the prior art broader iodine value range.

Appellants also argue that because Sleeter “deals with rendering structural products water resistant[,] it does not recognize, nor even attempt to determine, whether the applied composition is dispersible under aqueous conditions.” (App. Br. 18, ll. 1-3). As discussed above, we find Appellants’ arguments unpersuasive because the prior art composition comprising triglycerides from hydrogenated soybean oil or soy stearine is substantially identical to the claimed composition comprising stearic acid triglyceride. Thus, one of ordinary skill in the art would have understood the prior art composition to have the same properties, including dispersibility in warm alkaline aqueous solution, as recited in claim 45. Appellants have not relied upon any persuasive evidence to show otherwise. *In re Spada*, 911 F.2d at 708; *In re Best*, 562 F.2d at 1255; *In re Fitzgerald*, 619 F.2d at 70. For these reasons, we find that Appellants have not shown the Examiner reversibly erred in determining claim 45 obvious over the prior art.

Claim 47

Appellants argue that the prior art discloses coated products that are different from Appellants’ claimed coated fibrous cellulosic materials. Appellants contend: “[T]here is no motivation for using the teachings of [Sleeter] for coating paper products and related materials as claimed.” (App. Br. 15, ll. 20-21). Furthermore, Appellants contend there is no teaching for “the use of fibrous cellulosic products to be coated with a highly hydrogenated, vegetable derived wax, as claimed in the present pending application.” (*Id.* 16, ll. 2-3). Additionally, Appellants assert the



Declaration of Mr. Borsinger under 37 C.F.R. § 1.132, submitted May 18, 2006, describes the “differences between fibrous cellulosic products that are derived from wood, such as paper and cardboard, and distinguish[es] these products from lumber or strand board, products made with wood.” (*Id.* 15, ll. 31-32). The Declaration states:

“The fibrous cellulosic products claimed in the present pending application and the composite boards described in [Sleeter] . . . [are] different because the structural board form used in [Sleeter] contains lignin to provide it with its’ structure, and lignin is absent from the fibrous cellulosic products claimed in the present pending application.”

(Decl. ¶ 17). Furthermore, the Declaration states that “a person following [Sleeter] would not employ its’ teachings with fibrous cellulosic materials.” (Decl. ¶ 18).

Appellants’ arguments and the Declaration are unpersuasive because the claims are not directed to a coated substrate, but to a *composition* for application to a substrate (i.e., a fibrous cellulosic substrate). Furthermore, as far as we can tell from the evidence of record, the composition disclosed in Sleeter is identical to the claimed composition. Therefore, the characteristics of the prior art composition comprising hydrogenated soybean or soy stearine would inherently include the characteristics of the claimed inventive wax as disclosed in the Specification, including the capability to be applied to fibrous cellulosic material. Neither Appellants’ arguments nor the Declaration show that the claimed composition has patentably distinct properties from the prior art composition.

Moreover, Sleeter’s description of applying the composition to composite materials does not criticize the prior art composition’s capability

for application to other materials. Indeed, the Examiner found that Sleeter discloses applying the claimed composition to “fibrous vegetable matter (which would be inclusive of paper) and fiber board.” (FF 11).

For these reasons, we find that Appellants have not shown that the Examiner reversibly erred in determining claims 30-39, 41, 42, 45, and 47 obvious in view of Sleeter.

*Obviousness Rejection of Claims 30-38, 41, 42, 45, and 47 in View of Ong*

The Examiner alleges “tristearin is one of the triglycerides claimed by applicant.” (Ans. 5, I. 13). On the other hand, Appellants appear to argue that tristearin is not one of the claimed triglycerides (App. Br. 18, I. 21), and contend:

[Ong] deals with tristearin; Applicants claim a triglyceride which has a stearic acid as a major component. Tables 1 and 2 of the specification . . . summarize properties of the inventive waxes, and the fatty acid composition of these waxes ranges from C<sub>8</sub> through C<sub>20</sub>. The soy wax includes a greater concentration range of C<sub>18:0</sub> (stearic acid) than the palm wax, but this fatty acid is not the only fatty acid in the inventive waxes. . . . Therefore, these Claim rejections under 35 U.S.C. §103(a) are improper and must be withdrawn.

(*Id.* 19, II. 22-28).

We agree with Appellants. There is no disclosure in the prior art that tristearin is a “triglyceride comprising an oil from the group consisting of soybean, corn, cottonseed, rape, canola, sunflower, palm, palm kernel, coconut, crambe, linseed and peanut” or a “triglyceride comprises an oil selected from the group consisting of palm and soybean oil,” as required by the independent claims 30 and 45, respectively. The Examiner has not

identified evidence or provided acceptable reasoning to show the prior art tristearin is a triglyceride comprising any one of the claimed oils.

Therefore, we must agree with Appellants that the Examiner erred in determining the subject matter of the appealed claims obvious in view of Ong.

*Obviousness Rejection of Claims 30-38, 41, 42, 45, and 47 in View of RD 392017*

Appellants submit separate specific arguments to claim 33, and we address these arguments accordingly. Appellants also submit specific arguments to grouped claims: i) 30, 31, and 47, and ii) 33 and 41. We select representative claim 30 from the first group and representative claim 33 from the second group, and confine our discussion to these claims. 37 C.F.R. § 41.37(c)(1)(vii).

Claim 30

Appellants contend that the prior art teaches away from the claimed invention because “one of ordinary skill in the art would . . . not want to use hydrogenated fats and oils to obtain a paper coating” in light of RD 392017’s statements to avoid use of hydrogenated fats and oils and the disclosure from page 772 (App. Br. Exhibit B) that “[i]t is not necessarily an advantage to work with fully or nearly fully hydrogenated mixtures of triglycerides.” (App. Br. 21, ll. 12-21). Appellants’ arguments are unpersuasive.

RD 392017 discloses coating paper to obtain a waterproof barrier “using high melting non hydrogenated triglyceride fractions *alone* or as mixtures with vegetable or animal fats,” that has the advantage of “[e]asy

recyclability of used coated paper.” (FF 12). A disclosed example describes a mixture of palm stearin having an iodine value of 12.7 and palm stearin having an iodine value of 38.2. (*Id.*, ll. 31-33). However, one of ordinary skill in the art would have understood the prior art to disclose compositions comprising non hydrogenated fractions of the mixture by themselves (i.e., a composition of 100% palm stearin having an iodine value of 12.7). Additionally, RD 392017 discloses the melting point range of exemplary mixtures of: i) palm stearin having iodine value 12.7 and ii) palm stearin having iodine value 38.2, in proportions ranging from 90:10 to 10:90, to be 50-65°C (122-149°F). (FF 13). As triglycerides with increasing iodine values (i.e., decreasing degree of saturation) show decreasing melting points (FF 6), triglycerides having decreasing iodine values would show increasing melting points, and one of ordinary skill in the art would have recognized that palm stearin having an iodine value of 12.7 has a melting point greater than 120°F. Thus, the prior art composition would reasonably appear to be identical to the claimed “composition for application to a fibrous cellulosic material,” and possess the claimed characteristics.

Additionally, the claimed composition requires a “vegetable-derived triglyceride . . . characterized by an iodine value between 0 and 30.” (Claim 30). According to Appellants, vegetable oils and fats having low iodine values can be obtained from hydrogenation and fractionation. (FF 14). Therefore, Appellants’ arguments that RD 392017 and page 772 teach away from Appellants’ claimed invention are unpersuasive because the claimed subject matter encompasses non hydrogenated triglyceride fractions comprising a palm oil, as well as triglycerides produced by hydrogenation of

palm oil. Thus, the prior art does not teach away from the path taken by Appellants.

Appellants argue: “There is no demonstration that the mixtures are actually being used, or could be used, as paper coatings, let alone any demonstration that papers coated with any of the mixtures could be recycled.” (App. Br. 22, ll. 7-9).

Appellants’ arguments are unpersuasive. The appealed claims are directed to a composition and not to a coating process. As discussed above, RD 392017 specifically discloses the triglyceride fractions as a “coating of paper to obtain a waterproof barrier” with the advantage of easy recyclability of the coated paper. (RD392017, l. 16). Furthermore, the Specification impresses that a prior art composition comprising a vegetable-derived triglyceride of palm oil, having an iodine value between 0-30 and a melting point greater than 120°F would necessarily have the claimed property of dispersibility in warm alkaline aqueous solution. (FF 2, 4, Spec. 20, ll. 5-17, Table 5). Appellants have not directed us to any persuasive evidence that the claimed composition is patentably distinct from the prior art composition and therefore fail to meet their burden to show the Examiner reversibly erred in rejecting claim 30 in view of RD 392017. *In re Spada*, 911 F.2d at 708; *In re Best*, 562 F.2d at 1255. *In re Fitzgerald*, 619 F.2d at 70.

#### Claim 33

Appellants contend: “[RD 392017] fails to describe viscosity of any of either one of the individual components used to make the mixtures, nor does it discuss the viscosity of the mixtures actually tested.” (App. Br. 23, ll. 1-2). Furthermore, Appellants argue that the Examiner has not made “a convincing argument why the reference teaches the subject matter of the

claimed invention,” and contend that “the rejection of these claims was speculative, leaving one to guess at the underlying rationale for the rejection of the claims.” (App. Br. 22, ll. 19-23).

Appellants’ arguments are unpersuasive. The Examiner determined viscosity to be a result effective variable that one of ordinary skill in the art would modify by routine optimization to control an important parameter of compositions involved in coating processes. (Ans. 6, ll. 9-12). Here, Appellants’ bare arguments that RD 392017 does not teach the limitations found in the claim are not sufficient to overcome the Examiner’s finding of obviousness. *In re Pearson*, 494 F.2d at 1405. For these reasons we find that Appellants have not shown the Examiner reversibly erred in determining claims 30-38, 41, 42, 45, and 47 obvious in view of RD 392017.

## CONCLUSION

On this appeal record, Appellants have failed to show that the Examiner reversibly erred in concluding that one of ordinary skill in the art would have found the subject matter of appealed claims 30-39, 41, 42, 45, and 47 obvious in view of Sleeter.

Appellants, however, have shown that the Examiner reversibly erred in concluding that one of ordinary skill in the art would have found the subject matter of appealed claims 30-38, 41, 42, 45, and 47 obvious in view of Ong.

Appellants have failed to show that the Examiner reversibly erred in concluding that one of ordinary skill in the art would have found the subject matter of appealed claims 30-33, 41, and 47 obvious in view of RD 392017.

Accordingly, the decision of the Examiner to reject all the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

PL initials  
sld

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